REMARKS:

1) Referring to item 10) of the Office Action Summary, please approve and accept the Formal Drawings that were originally filed with this application on September 15, 2003.

2) A few minor clerical and editorial corrections have been made in the specification, without introducing any new matter. Entry of the specification amendments is respectfully requested.

3) The claims have been amended as follows.

The original claims were essentially a literal translation of corresponding foreign claims. The claims have now been editorially amended to better conform to typical US claim style, to improve the grammar, and the like. These editorial amendments are not submitted for reasons of patentability and do not narrow the claim scope.

Furthermore, independent claim 1 has been amended to additionally recite that the first and second bulges of the outsole each respectively include a convex bulge protrusion on a lower surface of the outsole, as well as a concave bulge depression on an upper surface of the outsole in correspondence with the convex bulge protrusion on the lower surface. This feature is supported in the original disclosure and does not introduce any new matter (see e.g. Figs. 3 and 4; page 3 lines 21 to 22; page 4 line 12; page 9 lines 2 to 4; page 10 lines 14 to 16; page 11 lines 1 to 5; etc.).

New claims 16 to 18 have been added to cover additional features of the invention. Claim 16 is supported by original Fig. 7 and page 15 lines 1 to 5. Claim 17 is supported by original Figs. 3 and 4, page 9 lines 4 to 6 and page 15 lines 1 to 5. Claim 18 is supported by original Figs. 3 and 4, and page 8 lines 21 to 22. Thus, the new claims do not introduce any new matter.

Entry and consideration of the claim amendments and the new claims are respectfully requested.

4) Referring to section 2 on page 2 of the Office Action, the rejection of claims 1 to 4 and 7 to 10 as anticipated by US Patent 4,361,971 (Bowerman) is respectfully traversed.

5) Present independent claim 1 is generally directed to a sole structure for a cleated shoe, including an outsole formed of a thin plate of a hard material and a plurality of cleats provided on a lower surface of the outsole.

In combination with its other features, independent claim 1 recites two particular features that clearly and expressly distinguish the invention from the disclosure of Bowerman.

As a **first important feature**, present claim 1 recites that the outsole has a first bulge and a second bulge that each respectively include a convex bulge protrusion on the lower surface of the outsole and **a concave bulge depression on the upper surface** of the outsole in correspondence with the convex bulge protrusion on the lower surface. This configuration of each bulge including a convex protrusion on the lower surface and

a concave depression on the upper surface in correspondence with [illegible] one another is exemplified in the present figures, for example Figs. 3 and 4. Moreover, as explained in the specification, this bulge configuration of the outsole, especially including concave depressions on the upper surface, achieves a better fit of the upper surface of the outsole to the shape and structure of the shoe wearer's foot, and thus achieves better grip (see page 1 line 20 to page 2 line 11; page 4 lines 7 to 16; page 11 lines 6 to 17; etc.). As will be discussed below, the outsole structure according to Bowerman neither discloses nor would have suggested such a bulge configuration.

As a **second important feature**, present independent claim 1 recites that the first bulge is located to correspond with a thenar eminence of the wearer's foot, and the second bulge is located to correspond to a hypothenar eminence of the wearer's foot. The hypothenar eminence is anatomically defined as a bulged area including and around the metatarsophalangeal joint portion (MJ_5) disposed between a fifth proximal phalanx (PP_5) and a fifth metatarsus (M_5), as explained in the present specification (see e.g. page 4 line 1; page 5 lines 3 to 8; page 10 lines 1 to 4; Figs. 1 and 2; etc.). This is important, because it places the above-mentioned concave depression of the second bulge (on the upper surface of the outsole) directly at this hypothenar eminence bulge of the wearer's foot, so as to fit to the curved or bulging structure of the foot in this area and to thereby achieve good force transfer and "grip" between the foot and the outsole (see page 10 lines 10 to 17; page 11 lines 6 to 17; etc.). As will be discussed below, the outsole

structure according to Bowerman does not disclose and would not have suggested a second bulge located as presently claimed.

6) Bowerman discloses a track shoe having an outsole comprising a spike plate (10) fitted with spikes (20, 22).

Each spike (20) is screwed into a metal spike fastening member (22) that is embedded in a respective annular projection or protrusion (32) of the spike plate (10) (see Figs. 2 and 3; col. 2 lines 38 to 54; col. 3 lines 18 to 30; etc.).

As clearly apparent in Fig. 3, and as described at col. 3 lines 18 to 30, the annular projections (32) project convexly downwardly from the lower surface of the spike plate (10), but **do NOT include a concave depression on the upper surface** of the spike plate. Namely, the upper surface of the spike plate (10) is **a smooth flat planar surface** without any concave depressions at the locations of the downward projections (32). There is also no suggestion by Bowerman that providing concave depressions on the upper surface of the outsole could achieve any benefits or improvements. Thus, the above-mentioned "first important feature" of present claim 1 is not disclosed and would not have been suggested by the reference.

Fig. 4 in connection with Figs. 2 and 3 of Bowerman expressly show where the spike fastening members (22, 22A, 22B) and thus the associated spikes (20) and the associated downwardly protruding projections (32) are located relative to the bone structure of the wearer's foot. While the first bulge arrangement (22B) of the Bowerman outsole is located at the thenar eminence of the wearer's foot (i.e. in the area around the

metatarsophalangeal joint portion of the first or big toe), the Bowerman outsole does not include any bulge structure located corresponding to the second bulge of the present invention. Namely, Bowerman does not provide a bulge structure at the metatarsophalangeal joint area (MJ_5) between the fifth proximal phalanx (PP_5) and the fifth metatarsus (M_5) of the wearer's foot.

Particularly, the fifth metatarsus is identified by reference number 42 in Fig. 4 of Bowerman, and the hypothenar eminence is located at and around the joint between the fifth metatarsus and the fifth proximal phalanx (i.e. the joint directly adjacent to the end of the lead line of reference number 42 in Fig. 4 of Bowerman). The Bowerman bulge structure (22A) closest to the pertinent location is identified by reference number 22A in Fig. 4, where it is clearly seen that the bulge (22A) is located at a position of the fifth distal phalanx, i.e. directly at the "little toe" of the wearer's foot.

As can generally be recognized by comparing Fig. 1 of the present application with Figs. 2 and 4 of Bowerman, the hypothenar eminence is located **rearwardly** in comparison to the thenar eminence of the wearer's foot. Thus, as can be seen in Fig. 2 of the present application, the second bulge (2b) is located **rearwardly** in comparison to the first bulge (2a) in the present inventive outsole. Contrary thereto, the bulge structure (22A) on the lateral side of the Bowerman outsole is located **forwardly** compared to the bulge structure (22B) on the medial side as can be seen in Figs. 2 and 4 of Bowerman. Namely, a comparison of Fig. 1 of the present application with Fig. 4 of Bowerman, and a comparison of Fig. 2 of the present application

with Fig. 2 of Bowerman demonstrate the significant difference of the location of the respective bulges. Note that Fig. 4 of Bowerman is a mirror image or opposite foot compared to Fig. 1 of the present application, and similarly Fig. 2 of Bowerman is a mirror image or an opposite foot compared to Fig. 2 of the present application.

Furthermore, the required location of the special metatarsal cushion (24, 26, 28, 30) according to Bowerman (see Figs. 2, 3 and 4 as well as col. 3 lines 31 to 52), would have **precluded** arranging a spike protrusion structure at the location of the hypothenar eminence of the wearer's foot, as required by present claim 1. For these reasons, Bowerman does not disclose and would not have suggested the above-mentioned "second important feature" of present claim 1.

The rejected dependent claims 2 to 4 and 7 to 10 are patentably distinguished over the reference already due to their dependence, and additional distinguishing features thereof do not need to be discussed.

For the above reasons, the Examiner is respectfully requested to withdraw the rejection of claims 1 to 4 and 7 to 10 as anticipated by Bowerman.

7) Referring to section 4 on pages 2 to 3 of the Office Action, the rejection of claims 11 to 15 as obvious over Bowerman is respectfully traversed. Claims 11 to 15 depend from claim 1, which has been discussed above in comparison to Bowerman. For the above reasons, a person of ordinary skill in the art would not have been motivated, and would have found no suggestion, to

modify the outsole structure of the reference to include the inventive features of present independent claim 1. Thus, independent claim 1 and its dependent claims 11 to 15 would not have been obvious. The Examiner is respectfully requested to withdraw the rejection of claims 11 to 15.

8) The additional prior art made of record requires no particular comments because it has not been applied against the claims.

9) New claims 16 to 18 recite additional features that further distinguish the invention over the prior art. For example, claim 16 recites that a midsole provided in combination with the outsole has a flat upper surface and an undulating curved lower surface that fits the concave bulge depressions of the upper surface of the outsole. The midsole of Bowerman does not include such features. Present claim 17 recites that the bulges give the lower surface of the outsole a smoothly curved undulating sectional shape, for example as shown in present Figs. 3 and 4. To the contrary, the annular projections of Bowerman do not have such a smoothly curved undulating sectional shape but rather an angular trapezoidal shape. Present claim 18 recites that the thin plate forming the outsole has a continuous uniform thickness in an area of the bulges, for example as shown in present Figs. 3 and 4. Contrary thereto, it is apparent that the spike plate forming the outsole of Bowerman has a significantly increased thickness at the area of the bulges, thereby forming the bulges without concave depressions on the upper surface.

10) Favorable reconsideration and allowance of the application, including all presents claims 1 to 4 and 7 to 18, are respectfully requested.

Respectfully submitted,

Takeshi OOREI
Applicant

WFF:hc/4578

By Walter F. Fasse
Walter F. Fasse
Patent Attorney
Reg. No.: 36132
Tel: 207 862 4671
Fax: 207 862 4681
P.O. Box 726
Hampden, ME 04444-0726

CERTIFICATE OF FAX TRANSMISSION:

I hereby certify that this correspondence with all indicated enclosures is being transmitted by telefax to (703) 872-9306 on the date indicated below, and is addressed to: COMMISSIONER FOR PATENTS, P.O. BOX 1450, ALEXANDRIA, VA 22313-1450.

Walter F. Fasse 3/7/05
Name: Walter F. Fasse - Date: March 7, 2005